UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,080	02/11/2004	Daisuke Sakiyama	018656-682	3417

			EXAMINER
21839	7590	03/15/2006	LEE, CHUN KUAN

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ART UNIT	PAPER NUMBER
2181	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/775,080	SAKIYAMA ET AL.
	Examiner	Art Unit	
	Chun-Kuan (Mike) Lee	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *11 February 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *11 February 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

FRITZ FLEMING
Supervisory PRIMARY EXAMINER
GROUP 2100
AU 2181
3/13/2006

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *02/11/2004*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 1 is objected to because of the following informalities:

in claim 1, line 5, "the expansion memory" should be changed to -an expansion

memory-. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

2.   Claims 1-13, and 8 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

As per claims 1-2 and 8, it appears unclear regarding the relationship between

the "identical data to be output multiple times" and the "second output session", whether

if the second output session is derived from the identical data to be output multiple

times or if it is a second output session of identical data to be output multiple times.

As per claims 3, similar ambiguity as stated above also applies between the

"identical data to be output multiple times" and the "first output session".

Examiner will assumes that the first output session is defines as the first printing

for first print job and the second output session is defines as the second printing for

second print job .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Utsunomiya (US Patent 6,999,186) in view of Terajima (US Patent 5,309,251).

4.   As per claims 1, 8 and 14, Utsunomiya teaches a data outputting printer,

comprising:

a receiving unit (input/output module 3000 of Fig. 3) that receives print jobs;

a work (processing) memory (RAM 1037 of Fig. 3) that includes a storage area

(Fig. 3, ref. 1032, 3007) used for storing image data for print jobs received by said

receiving unit, as well as a processing memory area used for processing by converting

image data to raster images (Fig. 3, ref. 3008, 3009);

an outputting printer unit (printer 1030 of Fig. 3) that output by printing image

data after it has been processed in said processing area;

a mounting unit for mounting of the expansion memory (external memory 1043 of

Fig. 2) used for data storage (HD 1043 of Fig. 3), wherein the hard drive is mounted as

external memory for storing print data (col. 5, ll. 5-16);

a controller (printer controller 1031 and memory controller 1044 of Fig. 2) that,

where the job is a job which identical data is to be output multiple times (printing a

plurality of copies) (col. 5, ll. 17-32 and col. 6, ll. 20-44) or the job is a job which is a

normal single-copy print, and implementing different processing steps base on the

detection result of the job is the multiple-copy or the single-copy print (col. 8, ll. 28-40),

(i) stores the image data for the second output session (second copy)

onward and beyond into the work (processing) memory and the expansion

memory (Fig. 2-3 and col. 6, ll. 20-44);

(ii) reads out said image data from the work (processing) memory and the

expansion memory, and executes printing for the second output session (second

copy) onward via said printer unit (Fig. 2-3 and col. 6, ll. 20-44); and

Utsunomiya does not expressly teach the data outputting printer, comprising a

detection unit that detects whether or not an expansion memory has been mounted to

said mounting unit; and the controller selecting the storage destination memory based

on the result of the detection by said detection unit for storing and reading out of the

data.

Terajima teaches a facsimile apparatus comprising:

an internal RAM processing memory (Fig. 1, ref. 115);

an external memory (Fig. 1, ref. 109);

a sensor (Fig. 1, ref. 119) utilized for detecting whether or not the external

memory is coupled to the control unit (Fig. 1 and col. 3, l. 11 to col. 4, l. 14); and

a controller (Fig. 1, ref. 101) that, (i) selects the storage destination memory for

the data based on the results of the detection by said detection unit, and stores the data

therein, and (ii) reads out said data from the storage destination memory (Fig. 2-3 and

col. 3, l. 11 to col. 4, l. 64).

It would have been obvious to one of ordinary skill in this art, at the time of

invention was made to include Terajima's sensor and selection of the storage

destination memory for storing and reading base on the result of the sensor into

Utsunomiya's data outputting printer. The resulting combined references teach that the

external memory (when present) will store data for second and subsequent output

session, and will also have data read thereof for second and subsequent output

session; and when the external memory is not present, the RAM processing memory

does the same for second and subsequent output sessions.

The suggestion/motivation for doing so would have been to ensure the integrity

of data transferring from the RAM on to the external memory by ensuring that the

external memory is properly connected before data transferring.

Therefore, it would have been obvious to combine Terajima with Utsunomiya for

the benefit of increasing the data transferring integrity.

5.   As per claim 2, Utsunomiya and Terajima teach all the limitations of claim 1 as

discussed above, where both further teach the data outputting printer comprising

wherein if it is detected by said detection unit that an expansion memory is mounted,

said controller stores the data used for said second output session onward in said

expansion memory, while if it is not detected by said detection unit that an expansion

memory is mounted, said controller stores the data used for said second output session

onward in said processing memory (Utsunomiya, Fig. 2-3 and Terajima, Fig. 3 and col.

3, l. 11 to col. 4, l. 14).

6.   As per claim 3, Utsunomiya and Terajima teach all the limitations of claim 2 as

discussed above, where both further teach the data outputting printer comprising

wherein if it is detected by said detection unit that an expansion memory is mounted,

said controller outputs the data processed in said processing memory as is for the first

output session (Utsunomiya, Fig. 2-3 and Terajima, col. 3, l. 11 to col. 4, l. 14), wherein

the communication result is first stored in the RAM (processing memory) then later

transferred to the external memory and prior to printing, if the external memory is

removed, the data is printed from the RAM.

7.   As per claim 4, Utsunomiya and Terajima teach all the limitations of claim 1 as

discussed above, where Terajima further teaches the data outputting printer comprising

wherein said controller determines the storage format for the data used for the second

output session onward in accordance with the results of the detection by said detection

unit (Terajima, Fig. 6 and col. 5, ll. 29-50), wherein if data is stored on the external

memory, the data would require proper formatting by the serial interface circuit for

performing serial communication for data between the control unit and the external

memory.

8.   As per claim 5, Utsunomiya and Terajima teach all the limitations of claim 4 as

discussed above, where Terajima further teaches the data outputting printer comprising

wherein where the job is a print job sent from an external device, if the mounting of an

expansion memory is detected by said detection unit, said controller stores the input

data in said expansion memory in the format of the image data resulting from

processing in said processing memory, while if the mounting of an expansion memory is

not detected by the detection unit, said controller stores the input data in said

processing memory in the data's format prior to its processing in said processing

memory (Terajima, Fig. 6; col. 3, l. 11 to col. 4, l. 14 and col. 5, ll. 29-50), wherein if the

external memory is detected, the data is stored in the external memory after being

properly processed by being formatted for serial communication and if the external

memory is not detected, data is stored in the RAM without implementing the serial

formatting.

9.   As per claim 6, Utsunomiya and Terajima teach all the limitations of claim 1 as

discussed above, where Utsunomiya further teaches the data outputting printer

comprising one or more compression/decompression (compression/expand) unit(s) that

compress data and decompress compressed data (Utsunomiya, col. 2, ll. 8-67 and col.

7, ll. 22-32).

10.   As per claim 7, Utsunomiya and Terajima teach all the limitations of claim 6 as

discussed above, where Utsunomiya further teaches the data outputting printer

comprising wherein said expansion memory stores data compressed by said

compression/decompression unit(s) (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32),

wherein data are compressed before being stored.

11.   As per claim 9, Utsunomiya and Terajima teach all the limitations of claim 8 as

discussed above, where both further teach the data outputting printer comprising

wherein if it is detected by said detection unit that an expansion memory is mounted,

said controller stores the image data used for printing of the second copy onward in said

expansion memory, while if it is not detected by said detection unit that an expansion

memory is mounted, said controller stores the image data used for printing of the

second copy onward in said processing memory (Utsunomiya, Fig. 2-3 and Terajima,

Fig. 3 and col. 3, l. 11 to col. 4, l. 14).

12.   As per claim 10, Utsunomiya and Terajima teach all the limitations of claim 9 as

discussed above, where both further teach the data outputting printer comprising

wherein if it is detected by said detection unit that an expansion memory is mounted,

said controller prints out the first copy using the image data processed in said

processing memory (Utsunomiya, Fig. 2-3 and Terajima, col. 3, l. 11 to col. 4, l. 14).

13.   As per claim 11, Utsunomiya and Terajima teach all the limitations of claim 8 as

discussed above, where Terajima further teach the data outputting printer comprising

wherein said controller determines the storage format for the image data used for the

second copy onward in accordance with the results of the detection by said detection

unit (Terajima, Fig. 6 and col. 5, ll. 29-50), wherein if data is stored on the external

memory, the data would require proper formatting by the serial interface circuit for

performing serial communication for data between the control unit and the external

memory.

14.   Claims 12-13 repeat the limitations of claims 6-7 and are therefore rejected

accordingly.

15.   As per claim 15, Utsunomiya and Terajima teach all the limitations of claim 14 as

discussed above, where Utsunomiya further teach the data outputting printer comprising

one or more compression/decompression unit(s) that compress image data input from

said processing area, decompress compressed image data and output decompressed

image data to said processing area (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32),

since data are compressed before being stored, said data must also be decompressed

before being printed.

16.   As per claim 16, Utsunomiya and Terajima teach all the limitations of claim 15 as

discussed above, where Utsunomiya further teach the data outputting printer comprising

wherein said expansion memory stores image data compressed by said

compression/decompression unit(s) (Utsunomiya, col. 2, II. 8-67 and col. 7, II. 22-32),

wherein data are compressed before being stored.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz M. Fleming can be reached on (571) 272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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03/09/2006

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